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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/675,604

09/29/2003

Seok Joo Koh

5895P042

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06/21/2006

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EXAMINER

LIN, WEN TAI

ART UNIT

PAPER NUMBER

2154

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/675,604

**Applicant(s)**

KOH ET AL.

**Examiner**

Wen-Tai Lin

**Art Unit**

2154

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9/29/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-5 are presented for examination.
2. Claims 1-5 are objected to because it appears that the term “the network character information” in claim 1 lacks antecedent basis.
3. Claim 4 is objected to because it is unclear what is meant by “selecting a node having ... if one or more nodes having the same subnet ID are searched for” and “selecting a node having ... if one or more nodes having the same subnet ID are not searched for” [i.e., “selecting a node having ... if one or more nodes having the same subnet ID as the new participant are found” and “selecting a node having ... if no node having the same subnet ID as the new participant is found”?].

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Kadansky et al.[U.S. Pat. No. 6507562].

6. As to claim 1, Kadansky teaches the invention as claimed including: a method of constructing and managing an overlay multicast tree on the Internet, the overlay multicast tree including a sender, one or more receivers and one or more agents [e.g., 320, Fig.3; col.10, lines 40-44] for relaying data [e.g., Fig.1], comprising:

the first step of a new participant requesting access to the overlay multicast tree from a tree manager [col.16, 53-63; i.e., each repair head functions as a tree manager for its group members] while transmitting network characteristic information [e.g., col.24, lines 54-60; col.26, lines 40-45; i.e., a recommended TTL in a HeadBind message is a network characteristic information] thereof to the tree manager [e.g., col.16, lines 19 – 26; note that the “the changes” inherently include addition of new group members];

the second step of determining an optimal parent node in consideration of the network character information of the new participant having requested access at the first step and network characteristic information of agents participating in a currently constructed overlay multicast tree, and transmitting information of the determined parent node to the new participant [e.g., col.19, line 62- col.20, line 16]; and

the third step of the new participant establishing data channels on the basis of the information of the determined parent node [e.g., col.15, line 30-col.16, line 44].

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7. As to claim 2, Kadansky further teaches that the method further comprises the fourth step of the agent transmitting information of child nodes currently held thereby to the tree manager at regular intervals after having accessed the overlay multicast tree through the first, second and third steps, and the tree manager collecting the transmitted information of child nodes and checking and managing status of the overlay multicast tree [e.g., col.24, lines 24-39].

8. As to claim 5, Kadansky further teaches that the fourth step is performed in such a way that each of the nodes having accessed the overlay multicast tree starts a status report timer with a status report interval set, transmits information of child nodes connected thereto to the tree manager when the status report timer reaches the set interval, and restarts the status report timer [e.g., col.24, lines 24-39].

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kadansky et al.(hereafter "Kadansky") [U.S. Pat. No. 6507562], as applied to claims 1-2 and 5 above, further in view of Cheng et al.(hereafter "Cheng") [U.S. PGPub 20020150094].

11. As to claim 3, Kadansky does not specifically teach the new participant provides subnet ID information of a network thereof when requesting access to the overlay multicast tree from the tree manager.

However, in the same field of endeavor, Cheng teaches using IGMP\_RID\_Request for a new participant to request joining a multicast tree, wherein a subnet ID information (i.e., the scope region represented by a Root\_ID) is included in the request [e.g., paragraphs 138 and 397; Fig. 40].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a subnet ID in Kadansky's request packet because the subnet ID gives a clear indication whether the requesting host (or receiver) and the new parent are in the same local region.

12. Claims 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**13.** A shortened statutory period for response to this action is set to expire 3 (three) months and 0 days from the mail date of this letter. Failure to respond within the period for response will result in ABANDONMENT of the application (see 35 U.S.C. 133, M.P.E.P. 710.02, 710.02(b)).

### ***Conclusion***

**Examiner note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the contest of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(571) 273-8300 for official communications; and

(571) 273-3969 for status inquires draft communication.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

June 13, 2006

Wen-Tai Lin  
6/13/06